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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,804	03/02/2000	Amit Gulati	9804-015-999	4426

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EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/517,804

Applicant(s)

GULATI ET AL.

Examiner

Allen Wong

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

2. Claims ~~1-20~~ ^{1-5, 8-10 + 13-18} are rejected under 35 U.S.C. 102(b) as being anticipated by Cheney (5,668,599).

Regarding claim 13, Cheney discloses a computer readable memory to direct a computer to function in a specified manner, comprising:

a buffer management module to establish a first buffer size and a second buffer size for a scalable buffer (fig.4, element 600 is a buffer management module that appropriates the first and second buffer sizes for scalable buffer 601);

a video decoding module to process a video stream utilizing said first buffer size and said second size (fig.4, element 301); and

an analysis module to create memory utilization data characterizing memory performance during processing with said first buffer size and said second buffer size, said analysis module including a buffer size adjuster to assign a buffer size for said scalable buffer in accordance with said memory utilization data (col.12, lines 13-45, fig.4, element 401 is the controller module or analysis module that is interactive with all parameters presented element 401 for analysis; further, Cheney teaches the adjustment of a buffer size register and a spill size register for minimizing memory use and permit efficient decoding, as disclosed col.14, lines 25-36).

Note claims 1 and 10 have similar corresponding elements.

Regarding claims 2, 14 and 15, Cheney discloses the definition of a buffer size as a multiple of an encoded image data block in the form of a macroblock (col.13, ln.45 to col.14, ln.3; Cheney discloses macroblock image formats 4:2:0 and 4:2:2, where a macroblock is a data unit that contains luminance and chrominance components, for instance, 4:2:0 chroma formatted macroblock comprises data covering a 16 pixel by 16 pixel section of the video frame and 4:2:2 chroma sampling format comprising four 8x8 blocks of luminance data and four corresponding 8x8 blocks of chrominance data).

Regarding claims 3 and 16, Cheney discloses the use of a variable length decoder (fig.4, element 311).

Regarding claims 4 and 17, Cheney discloses the use of a inverse discrete cosine transfer function (fig.4, element 331).

Regarding claims 5 and 18, Cheney discloses the use of a motion compensator (fig.4, element 341).

Regarding claims 8 and 9, Cheney discloses the adjustment of the buffer size (col.14, lines 25-36, Cheney teaches the adjustment of a buffer size register and a spill size register for minimizing memory use and permit efficient decoding).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 6, 7, 11, 12, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheney (5,668,599) in view of Thacker (5,276,851).

Regarding claims 6, 7, 11, 12, 19 and 20, Cheney does not specifically disclose the use of cache miss rates. However, Thacker teaches the use of cache miss rates (col.7, lines 53-59). Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Cheney and Thacker as a whole for permitting the use of cache rates so as to maximize the buffer space for storing image data. Doing so would aid the computer's operating system to run more smoothly and efficiently.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

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Allen Wong
Examiner
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AW
February 27, 2003



CHRIS KELLEY
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